

## **REMARKS/ARGUMENTS**

### **1.) Status of the Claims**

Claims 1, 3-16, 18-25, and 27-30 are pending in the application. Favorable reconsideration of the application is respectfully requested in view of the following remarks.

### **2.) Claim Rejections – 35 U.S.C. § 103 (a)**

Claims 1, 3-16, 18-25, and 27-30 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Thomas, et al.* (U.S. Patent Publication No. 2004/0039827) in view of *Karjala, et al.* (U.S. Patent Publication No. 2004/0268148). Applicant respectfully traverses these rejections.

In the present case, Applicant respectfully submits that the Examiner has failed to establish a prima facie case of obviousness, since the cited references *Thomas* and *Karjala*, either alone or in combination, fail to teach or suggest all of the claimed elements. Initially, Applicant notes that, in the Appeal Brief filed on October 28, 2010, Applicant pointed out various deficiencies of both *Thomas* and the secondary reference, *Lev Ran*. In response, the Examiner has merely replaced *Lev Ran* with *Karjala*, but has failed to address or rebut any of the specific arguments submitted regarding *Thomas*. Nevertheless, Applicant maintains that, due to the deficiencies of both references, the pending claims are in condition for allowance.

#### **Claim 1**

For instance, independent claim 1 recites the following:

1. An Application Gateway Module suitable for use in a telecommunication system wherein a service network authenticates a user and authorizes the user for accessing a service offered by a service provider, the Application Gateway Module arranged for intercepting application messages between the user and the service and for identifying said user and said service, and including:

means for obtaining an authorization decision on whether the user is allowed to access the service;

the Application Gateway Module comprising:  
means for assigning a service session identifier intended to identify those application messages exchanged between the user and the service and that belong to a same service delivery authorized for said user;  
means for configuring a first finite-state machine with a number of statuses intended to identify specific events in service delivery, the first finite state machine configured to control service progression  
means for initiating a specific instance of the first finite-state machine, said specific instance being identified by the assigned service session identifier; and  
means for activating service policies applicable to said specific events and resulting in a state transition in the specific instance identified by the assigned service session identifier.

Many of these claimed elements are not found in either *Thomas* or *Karjala*. Initially, the Office Action relies on the new secondary reference *Karjala* as disclosing "activating service policies applicable to said specific events." However, as noted below in more detail, the claimed specific events are related to statuses of the claimed finite-state machine, and the claimed service policies applied to the specific events result in state transitions in the specific instance identified by the assigned service session identifier. The cited portion of *Karjala*, however, merely discusses types of automated and manual certificate enrollment in a VPN authentication process. *Karjala*, ¶ 0047. Applicant respectfully contends that this fails to teach or suggest the specific claimed limitation.

Also, as stated previously, Applicant respectfully contends that *Thomas* fails to disclose or suggest multiple claim limitations. Paragraphs [0064]-[0067] disclose an intermediary server that the Examiner interprets as reading on the claimed Application Gateway Module. *Thomas* also discloses in paragraph [0259] an LSP intercepting calls, this LSP being part of a Microsoft OS such as Windows for securing communications to or from sockets. In addition, *Thomas* discloses in [0260] the LSP being part of the intermediary server. The Examiner also interprets this LSP as being part of the claimed Application Gateway Module. However, *Thomas* does not disclose where the LSP identifies the user and the service from the intercepted messages. Instead, the LSP is intended to communicate different applications with Windows sockets and, as such, there is no disclosure that the LSP may identify a user accessing a service in a service network, simply because this is not a task for the LSP service. Thus, Applicant

respectfully contends that the interpretation made by the Examiner that the intermediary server with the LSP reads on the claimed Application Gateway Module, which is arranged for intercepting application messages between the user and the service and for identifying said user and said service, is incorrect.

In addition, *Thomas* discloses in [0073]-[0075] an authentication procedure carried out when the user first tries to login to the system, and when this authentication is successful, the user is given a session identifier to be presented to access the various resources in the private network through the intermediary server. However, even if *Thomas* discloses a user authentication, these paragraphs fail to teach or suggest the claimed means for obtaining an authorization decision on whether the user is allowed to access the service, since authentication and authorization are well known to be different techniques.

Furthermore, *Thomas* discloses in paragraph [0075] providing a session identifier to the requestor as a result of a successful authentication, this session identifier used in subsequent requests to the intermediary server as long as the session is active. Subsequent requests to the intermediary server may correspond to a same or to different services and, generally speaking, are related to the session established between the authenticated user and the intermediary server. As commented above, *Thomas* discloses in [0073]-[0075] "...the user is given a session identifier to be presented to access the various resources in the private network..." In contrast, claim 1 recites "assigning a service session identifier intended to identify those application messages exchanged between the user and the service and that belong to a same service delivery authorized for said user." Therefore, in claim 1 there is one service session identifier for each service delivery, so that, where more than one service is delivered within a session, corresponding more than one service session identifiers are assigned. Consequently, the "session identifier used in subsequent requests to the intermediary server as long as the session is active" disclosed on paragraph [0075] of *Thomas*, even if similarly worded, fails to disclose or suggest the "service session identifier intended to identify those application messages exchanged between the user

and the service and that belong to a same service delivery authorized for said user” recited in the pending claim 1.

*Thomas* also discloses in paragraph [0286] a state machine. In *Thomas*’s disclosure, “the state machine is based on characteristics of the Windsock API and/or communication protocol API can handle the port mapped data.” This passage does not teach “configuring a first finite-state machine with a number of statuses intended to identify specific events in service delivery, the first finite-state machine configured to control service progression.” Specifically, *Thomas* fails to disclose statuses intended to identify specific events in service delivery, because APIs are mere descriptions of how communications between layers are carried out, rather than service progression. Moreover, *Thomas*’s paragraphs [0286]-[0287] deal with the selection of loopback addresses and ports involved in the LSP interception (already commented above) and this has nothing to do with the service progression of a service authorized for a user. Consequently, the specific state machine recited in claim 1 is different from the specific state machine disclosed in *Thomas*, which is at least a non-enabling disclosure.

Still with reference to *Thomas*’s paragraph [0286], and in the light of paragraph [0069], the Office Action contends this disclosure teaches the claimed feature “initiating a specific instance of the first finite-state machine, said specific instance being identified by the assigned service session identifier.” As already commented above, *Thomas*’s paragraph [0286] merely discloses “the state machine is based on characteristics of the Windsock API and/or communication protocol API can handle the port mapped data,” whereas *Thomas*’s paragraph [0069] discloses the intermediary server including a cookie manager. This cookie manager manages cookies previously received from a remote server and stored until being delivered to the remote server at appropriate times. These cookies are said to be set by a remote server and used for session, state or identification purposes. That is, *Thomas* discloses in [0069] cookies set by the remote server, submitted from the remote server to the intermediary server (which the Office Action has interpreted as the claimed Application Gateway module), stored at the intermediary server, and returned from the intermediary server to the remote server at appropriate times. This teaching does not suggest an “Application Gateway Module

having means for initiating a specific instance of the first finite-state machine, said specific instance being identified by the assigned service session identifier" as recited in claim 1, and by no means can be similarly interpreted even if isolated words like 'state' and 'session' appear in *Thomas's* paragraph [0069].

In this regard, *Thomas's* paragraph [0069] does not disclose the Application Gateway Module (intermediary server in the interpretation of the Office Action) having means for initiating a specific instance of the first finite-state machine cited in *Thomas's* paragraph [0286], since there is no teaching or suggestion to combine cookies received from the remote server with "the state machine is based on characteristics of the Windsock API and/or communication protocol API can handle the port mapped data." Consequently, there is no disclosure or suggestion in view of *Thomas's* paragraphs [0069] or [0286] of identifying such (undisclosed) specific instance of the state machine by the assigned service session identifier. Therefore, *Thomas's* paragraph [0069] cannot be naturally combined with paragraph [0286] and, even if combined, the paragraphs [0069] and [0286] fail to disclose the claimed "Application Gateway Module having means for initiating a specific instance of the first finite-state machine, said specific instance being identified by the assigned service session identifier." Moreover, combining the cookies received from a remote server, as disclosed in *Thomas's* paragraph [0069], with the state machine based on characteristics of the Winsock API, as disclosed in *Thomas's* paragraph [0286], does not make any technical sense for one skilled in the art that uses cookies as identifiers and follows API's for communication between different applications or application layers.

In view of at least the foregoing, Applicant respectfully submits that the independent claim 1 and the corresponding dependent claims 3-14 are patentable over *Thomas*, *Karjala*, or any combination thereof.

#### Claim 15

Independent claim 15 recites the following:

15. An Authorization Module suitable for use in a telecommunication system wherein a service network authenticates a user and authorizes the user for accessing a service offered by a service provider, the Authorization Module arranged for deciding whether a user is allowed to access a service and having:

- means for receiving a service authorization request from an Application Gateway Module; and
- means for returning to the Application Gateway Module a response on whether the user is granted access to the requested service;

the Authorization Module comprising :

- means for generating a service session identifier intended to correlate those application messages exchanged between the user and the service and that belong to a same service delivery authorized for said user;
- means for configuring a second finite-state machine with a number of statuses intended to identify specific events in service progression, the second finite-state machine usable by the Authorization Module to act over the Application Gateway Module to control the service progression;
- means for initiating a specific instance of the second finite-state machine, said specific instance being identified by said service session identifier; and
- means for determining service policies applicable to said specific events and resulting in a state transition in the specific instance identified by the assigned service session identifier.

Many of these claimed elements are not disclosed or suggested by either *Thomas* or *Karjala*. For instance, *Thomas* discloses in paragraphs [0058]-[0059] an intermediary server, which the Office Action interprets as reading on the claimed Authorization Module. *Thomas*'s paragraph [0059] discloses client machines accessing an intermediary server with requests for contents residing at private servers. The intermediary server, once the client machine is authenticated and authorized to get such contents, accesses the private server to obtain the requested contents and returns the contents to the requester client machine. Since *Thomas*'s intermediary server is interpreted as being both the Authorization Module and the Application Gateway Module in the present patent application, the various communications between these two modules are not considered to be relevant distinguishing features and will not be discussed hereinafter.

However, *Thomas*'s paragraph [0072] discloses the intermediary server storing session identifiers, or cookies, for the clients or requesters. There is no specific teaching in this paragraph on whether a user may have more than one session identifier at a time. More specifically, *Thomas*'s storing session identifiers for the clients does not

teach the claimed “means for generating a service session identifier intended to correlate those application messages exchanged between the user and the service and that belong to a same service delivery authorized for said user.” As already commented above with respect to claim 1, there is one service session identifier for each service delivery so that, where more than one service is delivered within a session, corresponding more than one service session identifiers are assigned. *Thomas*, on the other hand, does not teach the service session identifier for each service delivery.

Further, the Office Action interprets the teaching in *Thomas*’s paragraph [0286] as teaching the claimed “means for configuring a second finite-state machine with a number of statuses intended to identify specific events in service progression, the second finite-state machine usable by the Authorization Module to act over the Application Gateway Module to control the service progression.” This same teaching has been also used to reject the first finite-state machine in the Application Gateway Module in the independent claim 1. Consequently, the same rationale used above with respect to *Thomas*’s paragraph [0286] to defend the corresponding distinguishing feature of claim 1 can be used here to defend the second finite-state machine usable by the Authorization Module in claim 15.

Likewise, the Office Action interprets *Thomas*’s paragraph [0069] in combination with paragraph [0286] as reading on the claimed “means for initiating a specific instance of the second finite-state machine, said specific instance being identified by said service session identifier.” The handling of cookies as disclosed in *Thomas*’s paragraph [0069] has been discussed above with respect to claim 1 and is also applicable here. Consequently, the same rationale used above with respect to *Thomas*’s paragraphs [0069] and [0286] to defend the corresponding distinguishing feature of claim 1 can be used here to defend the specific instance of the second finite-state machine, and identified by the service session identifier included in the Authorization Module under the independent claim 15.

Still further, the Office Action relies on *Karjala* to read on the claimed “means for determining service policies applicable to said specific events and resulting in the state transition in the specific instance identified by the assigned service session identifier.”

Consequently, the same rationale used above with regard to the corresponding distinguishing feature of claim 1 can be used here as well. In view of at least the foregoing, Applicant respectfully submits that the independent claim 15 and the corresponding dependent claims 16, 18-24 are patentable over *Thomas, Karjala*, or any combination thereof.

#### Claim 25

Independent claim 25 recites the same or similar distinguishing limitations that have been discussed above with respect to the independent claims 1 and 15. As such, the aforementioned remarks regarding the patentability of the independent claims 1 and 15 apply as well to independent claim 25. Accordingly, Applicant respectfully requests reconsideration and allowance of independent claim 25 and the corresponding dependent claims 27-30.

#### Claim 31

Independent claim 31 recites that the claimed means for activating service policies further includes: (1) means for statically arming at least one of the service policies before arrival of a first message to invoke the service; and (2) means for dynamically arming at least one of the service policies during the progression of the service. These new limitations along with limitations that are similar to the ones discussed above with respect to claim 1 clearly distinguish the present invention over the cited references. Thus, Applicant respectfully requests reconsideration and allowance of claim 31.



### **CONCLUSION**

In view of the foregoing remarks, the Applicant believes all of the claims currently pending in the Application to be in a condition for allowance. The Applicant, therefore, respectfully requests that the Examiner withdraw all rejections and issue a Notice of Allowance for all pending claims.

The Applicant requests a telephonic interview if the Examiner has any questions or requires any additional information that would further or expedite the prosecution of the Application.

Respectfully submitted,

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